

Types of Waves

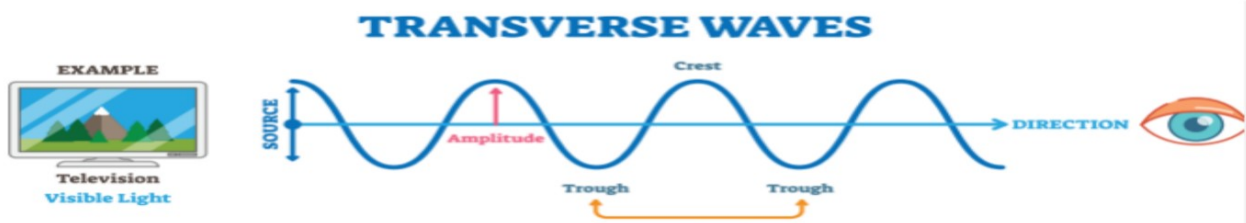
March 16

There are 2 types of waves:

1) Transverse

2) Longitudinal

Transverse waves are waves where the vibrations of the particles are PERPENDICULAR (right angles) to the direction the wave travels. They are like the waves of the ocean, moving up and down with crest and troughs. Light travels through these types of waves.

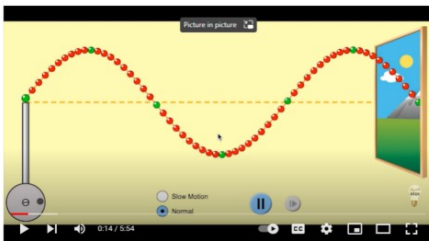


Longitudinal waves are waves where the vibrations of the particles are PARALLEL to the direction the wave travels. Sound travels through these types of waves with compression and expansions of the particles.



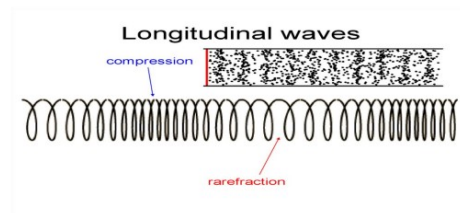
[Transverse wave using slinky coil - YouTube](#)

Light travels



[Longitudinal wave using slinky coil - YouTube](#)

Sound Travels



Sound waves are compression waves. They are also called longitudinal waves because the air vibrates along the same direction as the wave travels.

Sound waves will lose energy as they travel which is why if you are too far away from something, you cannot hear it since the sound waves have lost energy and are no longer bumping the particles around them.

<https://youtu.be/nGKffdal4Pg>

[Production of sound | Mechanical waves and sound | Physics | Khan Academy - YouTube](#)

Sound waves can bend, this is called **diffraction**. (Why you can hear noises around corners)

